

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2017-292-WS

IN RE:    Application of Carolina Water Service,  
          Inc. for Adjustment of Rates and  
          Charges and Modification to Certain  
          Terms and Conditions for the Provision  
          of Water and Sewer Service

ORDER

This matter is before the Public Service Commission of South Carolina ("Commission") on the Application of Carolina Water Service, Inc. ("CWS" or "Company") for approval of a new schedule of rates and charges and modifications to certain terms and conditions for the provision of water and sewer services for its customers in South Carolina. CWS filed its Application on November 10, 2017 pursuant to S.C. Code § 58-5-240 and S.C. Code Regs. §§ 103-503, 103-703, 103-512.4.A and 103-712.4.A.

In the Application, CWS requested an increase in revenues for combined operations of \$4,511,414 consisting of a water revenue increase of \$2,272,914 and a sewer revenue increase of \$2,238,500. The revenue increase utilizes a return on equity ("ROE") of 10.5% based on the rate of return on rate base methodology and a historical test year beginning September 1, 2016 and ending August 31, 2017.

CWS also requested authority to create a Utility System Improvement Rate ("USIR"), which would permit the Company to recover the cost of certain capital investments for system improvements. The USIR would be levied annually, after a hearing, in an amount up to ten percent of the Company's annual service revenues approved in this case. CWS' rationale for the USIR is

that it would smooth out cost recovery for capital expenditures, allowing the Company to stay out longer between rate cases, and ask for more modest increases when a rate case is necessary. App. p.6, ¶ 19.

CWS requested permission to modify its sewer service tariff to reduce the frequency with which customers must test their backflow devices from every year to every two years, and to authorize the Company to terminate service, after notice, to a customer who fails to demonstrate that his backflow device is working properly. App. p. 6, ¶ 20. CWS requested authorization to increase its Water Meter Installation Charge from \$35 to \$45 per year, to more accurately reflect the utility's cost of providing this service. App. p. 6, ¶ 21. The Company also requested approval of a provision in its tariff limiting the liability of the Company, its agents, and employees for interruption of service, whether caused by acts or omissions, to those remedies provided in the Commission's rules and regulations. App. p. 6, ¶ 22.

CWS last rate case before this Commission was in Docket No. 2015-199-WS. In that case, the Commission approved a settlement in which CWS received a combined revenue increase of \$3,068.44 based on a \$50,955,443 rate base; an operating margin of 11.95%, an ROE of 9.34%, and a return on rate base of 7.99%.

CWS' South Carolina operations are classified by the National Association of Regulatory Utility Commissioners ("NARUC") as a Class B water and wastewater utility according to water and sewer revenues reported on its Application for the test year ending August 31, 2017. The Commission's approved service area for CWS is in parts of sixteen counties.

## I. PROCEDURAL BACKGROUND

The Commission's Clerk's Office instructed CWS to publish a prepared Notice of Filing, one time, in a newspaper of general circulation in the area affected by CWS' Application and to mail copies of the Notice of Filing to all customers affected by the proposed rates and charges and modifications. The Notice of Filing indicated the nature of the Application and advised all interested parties desiring to participate in the scheduled proceeding of the manner and time in which to file the appropriate pleadings. CWS filed affidavits demonstrating the Notice of Filing had been duly published and provided to all customers.

Petitions to Intervene were subsequently filed on behalf of the Forty Love Point Homeowners' Association ("Forty Love"), York County, and James S. Knowlton. The South Carolina Office of Regulatory Staff ("ORS"), a party of record pursuant to S.C. Code § 58-4-10(B), made on-site investigations of CWS' facilities, audited CWS' books and records, issued data requests, and gathered other detailed information concerning CWS' operations.

CWS was represented by Charles L.A. Terreni, and Scott Elliott. Laura P. Valtorta represented Forty Love. Michael K Kendree represented York County, Mr. Knowlton appeared *pro se*, Jeffrey M. Nelson, and Florence P. Belser represented the ORS. On March 28, 2018 York County moved to withdraw from the proceedings without prejudice after CWS withdrew its request for approval of the USIR. York County's request was granted on the same day. Order No. 2018-38-H.<sup>1</sup>

The Commission held public hearings in Lexington, York, and Greenville counties to allow CWS's customers to present their views regarding the Application. An evidentiary hearing was

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<sup>1</sup> Counsel for CWS informed the Commission that it was withdrawing its request for a USIR without prejudice and was accepting ORS's recommendation that the USIR and other alternative ratemaking methodologies would be examined in a separate docket. Letter of Scott Elliott, dated March 27, 2018. York County's intervention was prompted by concerns about the USIR. York Cty. Pet. to Intervene, Jan. 23, 2018.

held April 3-4, 2018 at the Commission's offices in Columbia with the Honorable Swayne E. Whitfield, presiding.

The Company presented the testimony of Michael R. Cartin, Operations and Regulatory Affairs Manager (direct, rebuttal and supplemental), Robert M. Hunter, Financial Planning and Analysis Manager (direct and rebuttal), and Bob Gilroy, Vice President of Operations (direct, rebuttal, and testimony responsive to customers who testified at public hearings). Mr. Cartin, testified about the Company's operations and various expenses and capital expenditures made by CWS. Mr. Hunter testified about the Company's finances and revenue requirement, and Mr. Gilroy testified about various aspects of the Company's operations and customer service. The Company also presented the testimony of an expert witness, Dylan W. D'Ascendis, CRRA, Director at ScottMadden, Inc. Mr. D'Ascendis testified to the Company's capital structure, cost of debt, and recommended ROE.

Forty Love presented the direct testimony of subdivision residents and customers Barbara King and Jay Dixon. They testified to problems experienced with the sewer system serving at Forty Love Point. Mr. Knowlton presented his rebuttal testimony opposing the amount and frequency of the Company's rate increases.

ORS presented the testimony of Matthew Schellinger (direct and surrebuttal), Zachary Payne (direct and surrebuttal), and Douglas H. Carlisle, Jr., Ph.D. (direct and surrebuttal) as a panel. Dr. Carlisle testified to the Company's capital structure, cost of debt, and recommended ROE.

Dr. Carlisle's testimony included an analysis and recommendation for an allowed ROE. Mr. Payne testified about ORS's examination of the Application and CWS' books and records and

the subsequent accounting and pro forma adjustments recommended by ORS. Mr. Schellinger's direct testimony focused on CWS' compliance with Commission rules and regulations, ORS' business office compliance review, inspections of CWS' water and wastewater systems, test year and proposed revenue, and performance bond requirements.

## II. REVIEW OF THE EVIDENCE AND EVIDENTIARY CONCLUSIONS

### A. Standards and Required Findings

In considering the Application, the Commission must ascertain and fix just and reasonable rates, standards, classifications, regulations, practices, and measurements of service to be furnished. The Commission must give due consideration to the Company's total revenue requirements and review the operating revenues and operating expenses of CWS to establish adequate and reasonable levels of revenues and expenses. The Commission will consider a fair rate of return for CWS based on the record and any increase must be just and reasonable and free of undue discrimination. CWS has also asked this Commission to approve revenues based on an authorized ROE established to allow CWS the opportunity to earn a fair return.

After evaluation of the positions of the parties, the Commission reaches the legal and factual conclusions below based on its review of the facts and evidence of record. The evidence supporting the Company's business and legal status is contained in the Application filed by CWS, testimony, and in prior Commission orders in the docket files of the Commission, of which the Commission takes judicial notice.

CWS provides has approximately 16,000 water customers and 13,000 sewer customers in Lexington, Richland, Sumter, Aiken, Saluda, Orangeburg, Beaufort, Georgetown, Abbeville, Union, Anderson, York, Cherokee, Greenville, Greenwood, and Williamsburg counties. App.

Schd. F; R. p. 345 (Gilroy Dir. p. 2, ll. 21-24). As a public utility, its operations are subject to the jurisdiction of the Commission pursuant to S.C. Code §§ 58-5-10 *et seq.*

B. Test Year

A fundamental principle of the ratemaking process is the establishment of a historical test year as the basis for calculating a utility's return on rate base. To determine utility's expenses and revenues, we must select a 'test year' for the measurement of the expenses and revenues. Heater of Seabrook v. PSC, 324 S.C. 56, 59 n.1 (1996). While the Commission considers a utility's proposed rate increase based upon occurrences within the test year, the Commission will also consider adjustments for any known and measurable out-of-test year changes in expenses, revenues, and investments, and will also consider adjustments for any unusual situations which occurred in the test year. When the test year figures are atypical, the Commission should adjust the test year data. *See S. Bell Tel. & Tel. Co. v. Pub. Serv. Com*, 270 S.C. 590, 603 (1978).

In its Application, CWS utilized a historic test year, the twelve months beginning September 1, 2016 and ending August 31, 2017, with adjustments for 2018 expectations. App. p.2, ¶ 5. ORS used the same historical test year. R. p. 729 (Payne Dir. p. 2, ll. 5-10). None of the other parties contested CWS' proposed test year. Based on the information available to the Commission, and that none of the parties objected to CWS' proposed test year, the Commission concludes that the test year beginning September 1, 2016 and ending August 31, 2017, is appropriate for this Application.

C. Rate of Return on Rate Base

The Company requested rate base and rate of return treatment for its Application. App. pp. 4-5, ¶ 16. No other party of record proposed an alternative method for determining just and

reasonable rates and the testimony of ORS' witnesses Payne and Carlisle assumes that return on rate base will be the methodology employed.

The Commission has wide latitude in selecting a rate setting methodology. Heater of Seabrook, at 64. Even though S.C. Code § 58-5-240(H) requires the Commission to specify an operating margin in all water and sewer rate cases, the Commission is not precluded by that statute from employing the return on rate base approach to ratemaking. *Id.* Operating margin "is less appropriate for utilities that have large rate bases and need to earn a rate of return sufficient to obtain the necessary debt and equity capital that a large utility needs for sound operation." *Id.* at 65. In the Company's last rate case, the Commission employed the return on rate base methodology. The Commission finds the return on rate base methodology is appropriate. The Company's rate base, according to its Application, is \$54,853,170. App. Ex. B, Sch. C, p. 1.

The determination of return on rate base requires consideration of three components, namely: capital structure, cost of equity (or "ROE") and the cost of debt. R. pp. 397-398 (D'Ascendis Dir. pp. 4-5).

Mr. D'Ascendis and Dr. Carlisle agreed the capital structure and cost of debt of CWS's parent, Utilities, Inc. should be employed: it is 48.11% long-term debt and 51.89% common equity. R. pp. 395 (D'Ascendis Dir. p. 2, ll. 10-17); 649 (Carlisle Dir. p.4, ll. 21-p.5, l. 3). No other party disagreed. The Commission finds this capital structure supported by the uncontroverted testimony of the parties.

Mr. D'Ascendis and Dr. Carlisle disagreed on CWS's cost of debt. Mr. D'Ascendis used an embedded debt rate of 6.60%. Dr. Carlisle lowered CWS's cost of debt rate from 6.60% to 6.58% due to what he described as "unfavorable terms" of the Company's long-term debt. R. p.

649 (Carlisle Dir., p. 4, l. 21 – p. 5, l. 9). Dr. Carlisle argued the Company imprudently refinanced its long-term debt when interest rates were high and agreed to terms which prevent it from refinancing now that interest rates are lower. *Id.* Mr. D'Ascendis countered that the Company's long-term debt financing, which was agreed to in 2006, was in line with bond yields for similarly situated companies at the time. R. p. 438 (D'Ascendis, Rebut. p. 3, ll. 1-14). It is neither appropriate nor feasible to revisit the prudence of a decision made more than a decade ago, and the Commission has not been provided any evidence to support such second-guessing. We find the appropriate long-term debt rate for CWS is 6.60%.

The rate of return on common equity, or ROE, is a key figure used in calculating a utility's overall rate of return. Porter v. PSC, 333 S.C. 12 (1998). A utility is entitled to the opportunity to earn a fair rate of return. Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) and Bluefield Water Works Improvement Co. v. Public Service Comm'n, 262 U.S. 679 (1922),

Mr. D'Ascendis recommended that CWS' ROE should fall within a range of 10.45%.to 10.95%. R. p. 397 (D'Ascendis Dir. p. 4, ll. 4-20 (Table 2)).

To determine the cost of equity, Mr. D'Ascendis used the Discounted Cash Flow ("DCF") Risk Premium Model ("RPM") and the Capital Asset Pricing Model ("CAP-M") and ("ECAP-M") model to similar risk companies, *i.e.* proxy groups, of regulated and non-regulated companies. R. pp. 396-397 (D'Ascendis Direct pp. 3-4).

The proxy groups were used by Mr. D'Ascendis because the Company's common stock is not publicly traded, and, therefore, CWS's market-based common equity cost rates cannot be determined directly. *Id.* He used a proxy group of eight water companies whose common stocks were actively traded for insight into a common equity cost rate applicable to CWS. R. p. 402



(D'Ascendis Direct, p.10). The utility proxy group was selected according to these criteria: (i) they are included in the Water Utility Group of *Value Line's Standard Edition* (October 13, 2017); (ii) they have 70% or greater of 2016 total operating income and 70% or greater of 2016 total assets attributable to regulated water operations; (iii) at the time of the preparation of this testimony, they had not publicly announced that they were involved in any major merger or acquisition activity (*i.e.* one publicly traded utility merging with or acquiring another); (iv) they have not cut or omitted their common dividends during the five years ending 2016 or through the time of the preparation of this testimony; (v) they have *Value Line* and *Bloomberg* adjusted betas; (vi) they have a positive *Value Line* five-year dividends per share ("DPS") growth rate projection; and (vii) they have *Value Line*, *Reuters*, *Zacks*, or *Yahoo! Finance* consensus five-year earnings per share ("EPS") growth rate projections. *Id.* The companies that met Mr. D'Ascendis' criteria were: American States Water Co., American Water Works Co., Inc., Aqua America, Inc., California Water Service Group, Connecticut Water Service, Inc., Middlesex Water Co., SJW Corp., and York Water Co. *Id.*

Mr. D'Ascendis also selected a proxy group of twenty-eight non-price regulated companies comparable in total risk to the proxy group of water companies. R. Ex. 8 (D'Ascendis Direct, Ex. 1, Schd. DWD-6). The criteria for non-price regulated proxy group were: 1) they must be covered by *Value Line Investment Survey* (Standard Edition); 2) they must be domestic, non-price regulated companies, *i.e.*, non-utilities; 3) their beta coefficients must lie within plus or minus two standard deviations of the average unadjusted beta of the utility proxy group; and 4) the residual standard errors of the *Value Line* regressions, which gave rise to the unadjusted beta coefficients, must lie

within plus or minus two standard deviations of the average residual standard error of the utility proxy group. R. p. 423 (D'Ascendis Direct, p. 30, ll. 15-23).

Mr. D'Ascendis' DCF analysis yields cost rates for the water company proxy group of 8.64%. The RPM analysis produced a common equity cost rate of 10.69% for the water company proxy group. The CAP-M cost rate is 10.51% for the water company proxy group. D'Ascendis averaged the mean, 10.43%, and median, 10.58%, equity costs of the water company proxy group, resulting in 10.51%. R. p. 424 (D'Ascendis Direct, p. 29, ll. 10-15). With the non-price regulated proxy group, the DCF yields 13.57%, the RPM, 11.91%, and the CAP-M/ECAP-M, 11.15%. R. p. 424 (D'Ascendis Direct, pp. 31, l. 12-32, l. 4). The average of the mean and median of the non-price regulated proxy group is 12.06%. R. p. 425 (D'Ascendis Direct, p. 32, ll. 7-14).

The approximate average of the results produced by any of Mr. D'Ascendis' models is 10.45%. R. p. 426 (D'Ascendis Direct, p. 33, ll. 5-9). He also recommended an upward adjustment of 0.50% ROE, due to CWS's small size. R. pp. 426 - 429 (D'Ascendis Direct, p. 33, l. 11- 36, l. 20). His average ROE after the size adjustment is 10.95%. R. p. 429 (D'Ascendis Direct, p. 36, ll. 17-20). Mr. D'Ascendis recommended range of ROE was 10.45% to 10.95%. R. p. 397 (D'Ascendis Dir. p. 4, ll. 4-20 (Table 2)).

Dr. Carlisle employed the DCF model, the Comparable Earnings Model ("CEM"), and the CAP-M method to calculate his ROE range of 8.82% to 9.54%. R. p. 647 (Carlisle Direct, p. 2, ll. 12-15).

Dr. Carlisle also used a water company proxy group of ten water companies for his DCF and CAP-M analyses. R. p. 649 (Carlisle Direct, p. 4, ll. 15-20). Dr. Carlisle's water company

proxy group was identical to Mr. D'Ascendis' water company proxy group except for the addition of Global Water Resources and Artesian Resources. Carlisle Rev. Exhibit DHC-4.

Dr. Carlisle's DCF analysis yields cost rates for his water company proxy group of 8.82%. R. p. 654 (Carlisle Direct, p. 9, ll. 5-6). Dr. Carlisle did not perform the DCF analysis on non-price regulated proxy group as Mr. D'Ascendis did.

Dr. Carlisle's CAP-M analysis compared the returns of the companies in his water company proxy group to a "risk free rate of return" (projected 30 yr. Treasury bond yield). R. p. 658 (Carlisle Direct, p. 13, ll. 17-23). Dr. Carlisle's CAP-M analysis produced a range of 9.38% to 9.70%, which he averaged for a final CAP-M rate of 9.54%. R. p. 659 (Carlisle Direct, p. 14, ll. 12-13). Dr. Carlisle did not perform the CAP-M analysis on comparable non-price regulated stocks, as Mr. D'Ascendis did.

Dr. Carlisle's CEM analysis, was applied to a group of non-price regulated stocks selected from *Value Line* with a comparable price volatility factor ("beta" or "B") to those in his water company proxy group. R. p. 655 (Carlisle Dir. p. 10, ll. 1-6). The CEM analysis produced a "retrospective" return on equity of 9.15%, and a "prospective" ROE of 8.63%. Dr. Carlisle averaged the two to arrive at a CEM ROE of 8.89%. R. p. 656 (Carlisle Dir. p. 11, ll. 3-7).

Finally, Dr. Carlisle averaged his DCF, CEM, and CAP-M rates to arrive at his recommended ROE of 9.08%.

Mr. D'Ascendis and Dr. Carlisle disagreed often. Mr. D'Ascendis argued that Dr. Carlisle should have relied on analysts' estimates of earnings per share rather than historical and projected measures of book value per share, dividends per share, and sales growth to predict growth in earnings per share when performing his DCF analysis. R. p. 438 (D'Ascendis, Rebut. p. 3, l. 15 –

p. 7, l. 5). On the other hand, Dr. Carlisle took issue with Mr. D'Ascendis' reliance on analysts' projections of earnings per share ("EPS") as the sole factor in his DCF analysis. R. pp. 666–667 (Carlisle Surr. p. 5, l. 8 – p. 6, l. 12). Dr. Carlisle, instead, also considers dividends per share ("DPS") and book value per share ("BPS"). *Id.* Mr. D'Ascendis pointed out that common market references, such as *Yahoo Finance* and *Bloomberg's* provide earnings per share projections, but not projections of dividends per share, book value per share or sales growth, as evidence the investment community relies on the former but not the latter. R. p. 458, l. 24 – p. 459, l. 13. Had he done so, Mr. D'Ascendis testified, Dr. Carlisle's analysis would have produced a higher ROE. R. p. 442 (D'Ascendis Rebut., p. 7, ll. 1-5). Dr. Carlisle disagreed, citing studies showing that analysts' estimates have been historically overly optimistic, and should not be the sole basis for the DCF analysis. R. pp. 664–666 (Carlisle, Surr. p. 3, l. 6 – p. 5, l. 4).

Mr. D'Ascendis also disagreed with Dr. Carlisle' CAP-M calculations. He argued that Dr. Carlisle used the wrong measures of market return, and that he should have used the arithmetic mean of monthly total return rates instead of a geometric mean (or compound growth rate). Mr. D'Ascendis contends using the arithmetic produces the best insight into future returns. R. pp. 443–445 (D'Ascendis Rebut. pp. 8-10). Dr. Carlisle responded that his market return measure better reflects the variety of companies in the market. Dr. Carlisle also defended his use of the geometric mean arguing that the arithmetic mean ignores the "compounding" effect of investing and can mislead investors by masking over the ups and downs of the market. R. p. 668 (Carlisle Surr. p. 7, l. 5 – p. 10, l. 26).

Mr. D'Ascendis criticized Dr. Carlisle for not performing an ECAP-M analysis, which he testified would have produced an equity cost rate of 10.03%. R. pp. 444–445 (D'Ascendis Rebut.

p. 9, l. 8 – p. 10, l. 9). Mr. D'Ascendis also testified that Dr. Carlisle's selection of non-price regulated companies for his CEM analysis failed to reflect the total risk of his water company proxy group. Mr. D'Ascendis performed Dr. Carlisle's DCF and CAP-M analyses using a group that better reflected the risk of the water proxy group and found cost rates of 14.66% and 9.85% respectively. R. p. 448 (D'Ascendis Rebut. p. 13, ll. 14-24). Using the amended proxy group, Dr. Carlisle's range would change to 9.57% (DCF), 10.03% (CAP-M), and 12.26% (CEM) with an average of 10.62%. R. p. 449 (D'Ascendis Rebut. p. 14, ll. 4-10).

The Commission finds Mr. D'Ascendis' arguments persuasive. He provided more indicia of market returns than Dr. Carlisle, by using more analytical methods and proxy group calculations. Mr. D'Ascendis' use of analysts' estimates for his DCF analysis is supported by consensus, as is his use of the geometric mean. The Commission also finds that Mr. D'Ascendis' non-price regulated proxy group more accurately reflects the total risk faced price regulated utilities and CWS. Furthermore, there is no dispute that CWS is significantly smaller than its proxy group counterparts, and therefore the Commission finds a small company adjustment is warranted. An appropriate ROE for CWS is 10.45% with a small company adjustment of .50%, or 10.95%. The Company used an ROE of 10.5% in computing its Application, a return on the low end of Mr. D'Ascendis' range, and the Commission finds that ROE is supported by the evidence.

These table indicates the capital structure of the Company, the cost of debt, the cost of equity as approved in this Order, and the resulting rate of return on rate base:

Table 1: Summary of Overall Rate of Return

| <u>Type of Capital</u> | <u>Ratios</u> | <u>Cost Rate</u> | <u>Weighted Cost Rate</u> |
|------------------------|---------------|------------------|---------------------------|
| Long-Term Debt         | 48.11%        | 6.60%            | 3.18%                     |
| Common Equity          | 51.89%        | 10.50%           | 5.5%                      |
| Total                  | 100.00%       |                  | 8.60%                     |

D. Contested Rate Base Adjustments

The rate base proposed by CWS for combined operations was \$54,853,170. App. Ex B., Sch. C. CWS disputed two of ORS's rate base adjustments: Adj. 32(c) in which ORS proposes to disallow \$1,081,375 spent in connection with a liner of the equalization basin ("EQ Liner") at the Friarsgate wastewater treatment plant, and Adj. 32(d) in which ORS proposes to disallow \$306,552 in engineering costs incurred at the Friarsgate Plant. R. p. 744 (Payne Direct, p. 17).

1. Friarsgate EQ Basin Removal and Site Remediation

The Company proposes to include \$1,081,375 for engineering costs and remediation costs associated with the replacement of the Equalization Basin's ("EQ") liner at the Friarsgate WWTF. An EQ Liner is a heavy-mill plastic liner placed in an in-ground basin that holds water. R. p. 478, ll. 20-24. CWS hired an engineering firm, W.K. Dickson, after an upset occurred at its Friarsgate Wastewater Treatment Facility ("Friarsgate Plant"). W.K. Dickson assisted CWS in formulating and presenting a Corrective Action Plan required by a Consent Order with DHEC. R. p. 555, l. 16 –p. 557, l. 1. W.K. Dickson submitted engineering plans on an expedited basis for various changes and improvements made to the plant. R. p. 555, ll. 19-25. DHEC also required CWS to have a

professional engineer who was a wastewater expert on site to supervise the plant's operations. R. p. 556, ll. 14-22. W.K Dickson also provided required monthly reports to DHEC. R. p. 556, l. 22 – p. 557, l. 1.

The Company was required by a DHEC Consent Order to: 1) remove the existing liner, 2) complete any environmental mitigation efforts concerning the soils under the existing liner, and 3) replace the EQ Liner. This effort included removing and properly disposing of any affected soils. Once the site was sufficiently mitigated, new soil was brought in, graded, and compacted to prepare the site for the installation of the new liner. Although the EQ plastic liner has yet to be installed, the Company removed the existing EQ Liner and completed the environmental mitigation required by DHEC before the audit cutoff date of February 12, 2018. CWS acted expeditiously to comply with the DHEC mandate. CWS is not asking to recover the cost of the new liner. R. p. 505, ll. 8-14.

CWS witness Cartin, testified that the DHEC Consent Order required CWS to remove the EQ Liner at the Friarsgate Plant, remediate the soil underneath the liner, and replace the liner. R. pp. 318-319 (Cartin Rebut. p. 3, l. 3 – p. 4, l. 2). CWS spent \$1,081,375 to remove the EQ Liner and remediate the soil under the liner. *Id.* The Company had not installed the new liner yet but is in the process of doing so. *Id.* CWS contends that its compliance with DHEC's Consent Order was required for its continued operations and the public has benefitted from the removal of the old EQ Liner and the soil remediation, and therefore the costs should be included in rate base. *Id.*

The ORS proposes to disallow these costs because the EQ basin has not yet been replaced. The ORS reasons that the project included both the engineering and remediation and the replacement of the EQ Liner,. ORS's witness, Zachary Payne, testified that, since the new EQ

Liner is still under construction, the whole project is not used and useful and should not be included in rate base. R. p. 754 (Payne Surr. p. 4, ll. 7-17).

The Commission finds the measures required by the DHEC Consent Order were in the public interest. Disallowing recovery of remediation costs acts to impair a utility's ability to address environmental concerns and conflicts with the policy of allowing recovery of necessary and prudently incurred costs. These known and measurable expenditures provided prompt regulatory and environmental compliance and immediate environmental and customer benefits. CWS has not requested recovery of the cost of the new EQ Liner, the part of the project that ORS challenges as not used and useful. The Commission finds the \$1,081,375 cost of the removal of the existing EQ Liner and environmental remediation served the Company's customers and the public interest, and the Company is entitled to its recovery.

## 2. Friarsgate Engineering Costs

ORS proposed to disallow \$306,552 in engineering costs paid to the W.K. Dickson firm for services at the Friarsgate Plant. R. p. 744 (Payne Direct, p. 17, l. 11 (Adj. 32(d))). CWS contends the costs are recoverable because W.K. Dickson was hired to comply with the terms of the Consent Order with DHEC. R. pp. 319-320 (Cartin Rebut. p. 4, l. 3 – p. 5, l. 4). Mr. Cartin testified that W.K. Dickson was hired to design an O&M Manual take other measures to ensure compliance the plant. *Id.* Mr. Gilroy testified that W.K. Dickson was continuously present at the plant following an upset that occurred in June 2016 and led to a DHEC enforcement action. R. p. 353 (Gilroy Direct p. 10 ll. 1-7); R. p. 487, l. 12 – p. 488, l. 9. During that period, W.K. Dickson served as the principal point of contact with DHEC personnel and obtained permission for changes and improvements made to the facility. *Id.*



ORS took the position the W.K. Dickson costs should not be recoverable because they were incurred to comply with DHEC's Consent Order, which was caused by the Company's failure to adequately operate and maintain the Friarsgate Plant. R. p. 683, ll. 5-22. ORS's witness, Mr. Schellinger also testified the invoices for the work lacked sufficient detail to allow it to determine the work performed, and the work was required by Consent Orders which arose from the Company's violation of its NPDES permit. R. pp.712-715 (Schellinger Surr. p. 5, l. 13 – p. 8, l. 20). If the costs were allowable, Mr. Schellinger testified that they should be booked as operations and maintenance expenses, not capital assets. CWS responded that costs incurred to ensure the Company's compliance with environmental regulations should be recoverable, and that treating them as capital expenditures is consistent with the practice adopted by the Company and the ORS in the settlement of the last rate case. R. pp. 319 - 320 (Cartin Rebut. p. 4, l. 3 – p. 5, l. 4). The Commission finds the engineering fees are recoverable as a capital expense prudently incurred to ensure necessary compliance with environmental regulations.

#### E. Expenses

CWS contested adjustments proposed by the ORS to the Company's O&M expenses: a reduction of 96,892 in sludge hauling expenses (Adj. 9(d)), and the disallowance of 998,606 in legal expenses incurred during litigation involving the I-20 wastewater treatment plant (Adj. 16).

##### 1. Adjustment for Litigation Expenses

The Company proposes to amortize \$998,606 in financial costs and litigation expenses associated with its I-20 sewer system over 66.67 years. R, pp. 316-317 (Cartin Rebut., p. 1, l. 12 – p. 2, l. 18). These costs were primarily incurred with five actions: 1) a lawsuit brought by the Congaree Riverkeeper in the U.S. District Court, 2) a condemnation action brought by the Town

of Lexington, 3) a challenge to DHEC's denial of a permit for the I-20 Plant in the Administrative Law Court, 4) the Town of Lexington's challenge of DHEC's order it interconnect with CWS brought in the Administrative Law Court, and 5) CWS's lawsuit against the EPA in the United States District Court. Schellinger Sur. p. 3, ll. 1-11. The Company proposed to amortize these costs over 66.7 years, resulting in an expense of \$14,979 per year. R. p. 300 (Cartin, Dir., p. 2, ll. 15-18).

ORS argued the legal expenses should not be allowed for two reasons. Mr. Schellinger testified that legal expenses incurred to defend the Congaree Riverkeeper's lawsuit should not be allowed because the District Court had ruled against CWS finding various violations of its NPDES permit and of effluent limitations since 2009. R. p. 692 (Schellinger Surr. p. 3, l. 11 – p. 4, l. 5).<sup>2</sup> Mr. Schellinger viewed the company's lawsuit against the EPA and its litigation in the Administrative Law Court as related to the Riverkeeper proceeding, a position not disputed by CWS. Schellinger asserts that CWS should not be allowed to recover its legal costs because the actions arose from the Company's violations of environmental regulations. *Id.*

Schellinger testified the legal costs incurred in the condemnation action should not be recovered because CWS may be allowed to recover some costs if it prevailed. R. p. 730 (Schellinger Surr. p. 4, ll. 6-22). Schellinger also posited the actions before the Administrative Law Court could turn on the outcome of the condemnation action. R. p. 731 (Schellinger Surr. p. 5, ll. 1-12). He testified that since the outcome of the condemnation action was unknown and since

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<sup>2</sup> The Congaree Riverkeeper's lawsuit is ongoing, and the parties are in settlement discussions. R. p. 290, ll. 15-18.

if successful CWS may recover its litigation costs, the Commission should establish a regulatory asset in which to defer the litigation costs for future rate making treatment.

Mr. Cartin testified that CWS had no choice but to defend the Congaree Riverkeeper's lawsuit, and to prosecute its related actions. R. p. 490, l. 22 – p. 491, l. 7. He pointed out the Congaree Riverkeeper brought his suit to force an interconnection of the I-20 Plant to the Town of Lexington's sewer system, an action CWS was ready to take but the Town of Lexington would not allow. R. p. 489, ll. 8-20. It was not until 2016, after DHEC ordered the Town of Lexington to seek an interconnection with CWS, that Lexington brought its condemnation proceeding. R. p. 567, ll. 1-12. When the condemnation suit was brought, CWS readily allowed the town to take possession of the I-20 system and interconnect the plant, reserving its right to contest Lexington's valuation of the plant. *Id.*

The Commission finds that regulated utilities, like any business, will experience litigation costs associated with its business operations. CWS acted to limit exposure to liability and benefit the utility and its rate payers. The financial and litigation costs were prudently incurred. Recovery of these costs equates to \$14,979 in annual amortization expense. As Mr. Cartin testified, CWS had no alternative but to defend the Congaree Riverkeeper's lawsuit and engage in the related litigation. Therefore, CWS will be allowed to recover \$998,606 amortized over 66.7 years, at the rate of \$14,979 per year.<sup>3</sup>

## 2. Sludge Hauling Expenses

CWS incurred \$284,233 in sludge hauling expenses at its Friarsgate Plant and at its

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<sup>3</sup> If CWS should recover any of its litigation expenses in the condemnation action, they will be credited against the Company's litigation expenses in its next rate case.

Watergate wastewater treatment facility (“Watergate Plant”) during the test year. R. p. 753 (Payne Surr. p. 3). ORS proposed to remove \$96,892 in sludge hauling costs. ORS proposes an adjustment to allow recovery of a three-year average of annual sludge hauling costs at the two facilities.

ORS witness Payne testified that the ORS reviewed the sludge costs in the test year and the costs in the previous two years, concluding that the sludge hauling costs in the test year were atypical. R. pp. 751-752 (Payne Surr. p. 2, l. 19 – p. 3, l. 12). The ORS proposes to average the annual sludge expense for the three years reviewed and proposed an adjustment of \$96,892, normalizing this operating expense. *Id.*

CWS witness Gilroy testified the increase of sludge hauling expense during the test year was caused by additional sludge removal requirements at the Friarsgate WWTF produces large amounts of sludge that must be disposed of in a timely manner. R. pp. 358-360. The amount of sludge produced depends on many factors within the process of the waste water treatment. *Id.* The active sludge inventory within the process must be kept at a certain concentration for the biological process to be effective and result in a clear compliant effluent. *Id.* Excess sludge inventory must be removed frequently to keep sludge from building up to unacceptable levels which could cause problems with effluent quality. *Id.*

Mr. Gilroy testified that because the Friarsgate WWTF has been on a Consent Order, these sludge inventories are also monitored by DHEC, which recommends that the inventory to be kept at a constant rate. R. p. 365 (Gilroy Rebut. p. 3, ll. 3-12)). Ordinarily, the liquid sludge is poured into filtrate boxes that drain off the water leaving a very dry cake behind, which is then hauled and disposed of at the Northeast Sanitary Landfill. *Id.* When the sludge production exceeds the capacity

of the filtrate boxes, CWS utilizes contractor liquid tanker trucks to haul the sludge to the City of Cayce's disposal site. *Id.* Disposing of the sludge in the cake form is more cost-effective than hauling truckloads of liquid sludge. *Id.* Although more expensive, sometimes, the filtrate boxes are full, and tankers must be utilized. *Id.*

The Commission finds that the sludge hauling costs in the test year are recoverable as known and measurable, prudently incurred costs. The ORS does not dispute the sludge costs in the test year. It simply speculates that the costs will not recur in a similar amount. Speculation is not sufficient. Moreover, the testimony indicates that the sludge costs have increased because of the DHEC Consent Order, and were prudently incurred. The Commission denies the ORS adjustment to reduce the sludge hauling expenses.

3. Effects of the Income Tax and Jobs Act

a) Excess Accumulated Deferred Income Taxes

The Company filed its Application before Congress enacted the Tax Cuts and Jobs Act of 2017 ("TCJA"), which took effect on January 1, 2018. P.L. No: 115-97. The TCJA changed the tax laws affecting the Company. Mr. Hunter testified the TCJA reduced the corporate income tax rate from 35% to 21%, causing the Company to reduce its requested revenue requirement by approximately \$877,000. R. p. 255, ll. 16-22.

Mr. Hunter testified that an impact of the TCJA is a reduction in the cost of service to customers due to the amortization of the excess Accumulated Deferred Income Taxes ("ADIT"). Deferred taxes reflect the gap in timing between when utilities collect revenue from ratepayers for their federal income taxes and when they are paid. Mr. Hunter testified that because

the tax rate has been lowered, a portion of the ADIT collected by CWS will not be paid to the federal government and excess deferred taxes are created. R. p. 256, l. 2 – p. 258, l. 12

Because the excess ADIT will not be paid to the federal government, it should be held in a regulatory liability account until it is determined whether a refund to the ratepayers is appropriate. CWS estimates that the regulatory liability amount is \$3,229,909, which consists of \$2,978,710 and \$251,199 for the protected and unprotected balances respectively. R. p. 279–280 (Hunter Rebut. p. 4, l. 15 – p. 5, l. 10). The creation of this regulatory liability is offset by the reduction to the ADIT in rate base, therefore the impact is rate base neutral. *Id.* The protected portion of the regulatory liability will be amortized over the life of the asset which the Company has calculated at 56 years using the weighted average life of CWS' protected assets. *Id.* CWS proposes the unprotected portion be amortized over 3 years since these assets typically have a shorter useful life such as rate case expenses and deferred maintenance. The Company has adjusted Federal Income Taxes by \$136,924, the estimated annual amortization amount of the regulatory liability at this time, plus tax gross-up for a \$183,361 total revenue requirement reduction to account for the amount that will benefit customers. R. p. 280 (Hunter Reb p. 5, ll.7–10).

The ORS agrees with the (\$136,924) adjustment for the annual amortization of protected and unprotected excess ADIT liabilities and recommends that the protected excess ADIT liability should be amortized over 56 years resulting in an annual amortization of (\$53,191). The ORS proposes an amortization of the unprotected excess ADIT liability amount of (\$251,199) over 3 years resulting in an annual amortization of (\$83,733). R. p. 755–756 (Payne Surr. at p. 6, l. 1 – p. 7, l. 17)

The Commission finds that the parties' positions do not conflict and will adopt the adjustments described hereinabove.

b) CIAC Gross-up

Because Contributions in Aid of Construction ("CIAC") are now taxable under the Tax Cut and Jobs Act of 2017, the Company proposes to gross-up cash service availability charges and property contributions in aid of construction to recover the federal and state corporate income taxes associated with those contributions. Any CIAC (including tap fees) donated by a developer will now need to be grossed up for federal and state taxes. R. p. 280 (Hunter Rebut. p. 5, l. 11 – p. 6, l. 20). Using the 5.00% South Carolina State tax rate and 21.00% Federal tax rate would cause \$33.24 in taxes to be paid for every \$100.00 of CIAC. CWS' Connection Fee is \$300.00 per SFE and the Impact Fee is \$400.00 per SFE. R. p. 281 (Hunter Rebut. p. 6, ll. 15-21). The impact of Tax Cut and Jobs Act of 2017 on CIAC will require payment of \$232.68 per SFE at the time of connection. *Id.* CWS believes this cost should be borne by the customer responsible for the cost. CWS proposes to require its customers who connect to its water and sewer system to pay these costs in addition to the Connection Fee and Impact Fee. *Id.* The ORS does not object to the Company's proposal. R. pp. 717-718 (Schellinger Surr. p. 9, l. 11 – p. 10, l. 3).

The Commission finds the Company's proposal to gross up cash service availability charges and property CIAC to recover the federal and state corporate income taxes associated with those contributions to be reasonable. CWS is authorized to amend its tariff to include an appropriate charge to reflect a gross up for CIAC.

c) Credit for Income Tax Reduction

CWS objects to the ORS recommendation that \$241,875 in revenue which it attributes to the federal income tax change generated through the expected date of the Commission order in this docket be amortized over three years. ORS witness Schellinger testified that the ORS calculated the impact on CWS revenues of the change in the federal corporate tax reduction from 35% to 21% from January 1, 2018 through May 10, 2018 and determined the difference in the two tax rates is \$241,875. R. p. 718 (Schellinger Surr. p. 10, ll. 4-22). Mr. Schellinger recommended the Commission reduce CWS' authorized revenue \$80,625 each year for three years. *Id.*

Mr. Cartin testified that the ORS' adjustment considers a single effect of the Tax Act in a vacuum. R. pp. 323-324 (Cartin, Supp. p. 1, l. 12 – p. 2, l. 16). The adjustment does not consider other costs and expenditures the Company has or will experience during the estimated revenue adjustment period, such as increased purchased water and sewer expense due to rate increases from York County of approximately 25% and 29% for water and sewer respectively. *Id.* In addition, CWS's testimony is that the adjustment is based on estimated revenues that are not fully known and measurable prior to the hearing date. *Id.* The adjustment would not allow the Company the opportunity to earn its allowed return. In fact, the ORS schedules reflect that CWS is earning an ROE of only 3.47%. and consequently, a rate reduction is not appropriate. R. p. 325 (Cartin Supp. p. 3 ll. 1-12).

The Commission declines to adopt the ORS's proposed revenue adjustment for several reasons. The ORS is asking the Commission to consider only the effects of the TCJA on the Company during the period of January 1, 2018 and May 1, 2018; doing so would contravene



established ratemaking principles, violate due process of law, and constitute impermissible retroactive ratemaking.

The ORS would have Commission consider the benefits of the TCJA in isolation, but substantive due process requires the Commission to consider the regulated utility's overall earnings and whether it has the opportunity to earn its authorized rate of return. The United States Supreme Court has held that the due process clause of the Fourteenth Amendment requires a commission to consider *all* relevant factors when setting just and reasonable rates:

It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential."

Bluefield at 691, (1923) *citing* Mo. ex rel. Sw. Bell Tel. Co. v. Pub. Serv. Com., 262 U.S. 276, 287 (1923).

The South Carolina Supreme Court has expressly recognized this principle as well. So. Bell Tel. & Tel. Co. v. Pub. Serv. Com., 270 S.C. 590, 598 (1978) ("Before the Commission reaches a decision it must weigh the testimony and all other evidence"). The Commission may not act to lower rates now without considering *all* factors related to the Company's financial condition. S.C. Elec. & Gas Co. v. Pub. Serv. Com., 275 S.C. 487, 491 (1980) ("the proper approach for the Commission is to consider these extraordinary monies in setting the test period operating experience when a future rate increase is requested"). For the Commission to order a rate reduction based on the effects of the TCJA in isolation, would contravene this established principle and violate the due process rights of the subjected utilities. Federal Power Commission v. Hope Natural Gas Co., *supra*.

By requesting the Commission to credit past income tax expense reductions going forward, the ORS is also asking the Commission to engage in retroactive ratemaking. The South Carolina Supreme Court has ruled that, except in narrowly defined statutory circumstances, the Commission's ratemaking powers are prospective only. In S.C. Elec. & Gas Co. v. Pub. Serv. Com., the Commission ordered the utility to refund over seven million dollars to its customers as a result net profits from the interchange of power during the first six months of 1976 and 1977. S.C. Elec. & Gas Co. v. Pub. Serv. Com., at 488. The Supreme Court reversed, holding that the refund order constituted unlawful retroactive ratemaking. The Supreme Court held that the Commission did not have the authority to order the refunds:

Our legislature has empowered the Commission to prescribe refunds in only two specific instances. Pursuant to Code § 58-27-880, it may order a refund for the difference between new rates under bond and those ultimately found to be just and reasonable by the Commission. Additionally, the Commission may order a reparation for a past charge in excess of the applicable rate under Code § 58-27-960. Neither of those situations is present here.  
*Id* at 490.

The SCE&G case is directly applicable to the present circumstances. The effects of the TCJA do not qualify for the exception to the rule against retroactive ratemaking allowing certain adjustments for extraordinary expenses. The Supreme Court has defined an "extraordinary expense" as "one that is unanticipated and non-recurring". Porter, 328 S.C. at 231. Even if unanticipated, the TCJA's effects are certainly recurring. The Commission does not have the authority to adjust rates based on the reduction of a single item of expense, even if unexpected, without establishing the total cost of providing service.

While a customer credit proposed by the ORS might have some popular appeal, the ORS has offered no factual or legal justification for the adjustment. The effects of the income tax

reduction have already been factored into the Company's *future* revenue requirement through an adjustment proposed by Mr. Hunter. R. p. 255, ll. 11-22. The ORS did not take issue with Mr. Hunter's adjustment of the Company's future tax liability. R. p. 759, ll. 18-25. To subtract an additional \$241,875 from the Company's revenue requirement for *past* tax reductions would artificially reduce its operating revenue and could cause it to require another rate case even sooner. R. p. 502, ll. 8-19.

The Commission denies the ORS's recommended adjustment for the reduction in the Company's income tax rate.

F. Rate Case Expenses

CWS proposed to include rate case expenses, incurred in this rate case through the date of the hearing, and ORS agreed to this proposal, subject to its review of the requested additional amount and examination of supporting documentation. R p. 754 (Payne Surreb., p. 4, ll. 5-7). ORS received and reviewed documentation supporting rate case expenses of \$88,5000 and informed the Commission at the hearing that the ORS agrees with them. After the hearing, CWS presented documentation supporting additional rate case expenses of \$64,560. Because the additional rate case expenses are known and measurable, the Commission will allow them to be included in the total rate case expense and amortized over three years. We find the Company is entitled to \$153,060 in total rate case expenses, including those expenses submitted to ORS post-hearing. This amount amortized over three years less the Company's per book amount yields a post-hearing adjustment of \$21,520

G. Other Adjustments

The remaining ORS adjustments are accepted by this Commission without discussion. They either were not disputed by the parties or were caused by carrying out the effects of the adjustments adopted above.

H. Deferred Accounts

By Order No. 2015-876 in Docket No. 2015-199-WS, the Commission approved two regulatory deferred accounts authorizing CWS 1) to record and monitor all rate increases from third-party providers for water supply and sewer treatment; and 2) to recover non-revenue water expenses. The Commission authorized CWS to seek recovery of the balance of these deferred accounts, subject to audit by ORS and approval by the Commission in a subsequent rate case. In this Application CWS is seeking recovery of the balance in the regulatory deferral account associated with increases in purchased water from bulk water providers. (Application, para. 17) Mr. Hunter testified that the purchase water deferred account had a balance of \$669,808 as of March 8, 2018 and explained CWS sought recovery of this balance in this docket R. p. 278 (Hunter Rebut. p. 3 ll. 7–17). At the hearing, Mr. Payne testified that the ORS had reviewed the supporting documentation of the purchase water deferred account and that the ORS agreed with CWS' request to recover the balance of \$669,808. R. p. 752 (Payne Surreb., p. 2, ll.8-18). The Commission finds it reasonable for CWS to recover the purchased water deferred account balance of \$669,808.

Because the non-revenue water deferral account has a balance of zero, the ORS recommended this account be closed. R. p. 701 (Schellinger Dir., p. 11, l. 18 – p. 12, l. 8). The Company did not dispute this recommendation. The Commission finds it reasonable that the non-revenue water account be closed.

I. Performance Bond

CWS currently provides the maximum amount required for its performance bond in the amount of \$350,000 for water and \$350,000 for sewer operations. Using the criteria set forth in S.C. Code Regs. §§ 103-512.3.1 and 103-712.3.1, ORS recommended that CWS be required to continue the current performance bond amounts. R. p. 701 (Schellinger Dir. p. 12, ll. 9-15). CWS agreed to the performance bond amounts. The Commission requires that CWS maintain its performance bond in \$350,000 for water and \$350,000 for sewer operations.

J. Changes to Rates, Charges and Term of Service

1. Irrigation Only Meters

Mr. Cartin testified that after hearing concerns expressed by customers with irrigation only meters, the Company had determined eliminate the base facilities charge for irrigation only meters for residential customers who are no longer receiving an economic benefit from having an irrigation meter. The impact on revenues will be \$37,946 annually. The Company is not seeking recovery of this lost revenue here. R. p. 320 (Cartin Reb., p. 5, ll. 5-20).

The ORS has no objection to eliminating the base facilities charge on customers with irrigation only meters.

The Commission finds that eliminating the base facilities charge for customers with irrigation only meters is just and reasonable and in the public interest.

2. Backflow Testing.

CWS proposed to change the terms and conditions of its tariff to permit its customers to test their backflow devices every two years. The ORS proposed to limit the testing requirement to every two years for those residential customers with irrigation cross connections. R. pp. 699 - 700

(Schellinger Dir., p. 10, l. 18 – p. 11, l. 6). CWS concurred with the ORS recommendation with the additional provision that if the sewer system utilizes chemical injection, annual testing will be required. R. p. 363 (Gilroy Rebut., p. 1, ll. 1-7).

The Commission finds that permitting CWS' residential irrigation customers to test backflow preventers every two years is reasonable, provided that if the sewer system utilizes chemical injection, annual testing will be required

### 3. Water Meter Installation Charge

CWS requests authority to increase its Water Meter Installation Charge for \$35.00 to \$45.00 to more closely reflect the utility's costs. (Application at ¶ 20) The ORS has reviewed the cost justification for this increase and agrees the increase is reasonable. R. p. 699 (Schellinger Dir., p. 10, ll.14 – 17). The \$45.00 charge is reasonable and CWS is authorized to increase its Water Meter Installation Charge to \$45.00.

### 4. Limitation of Liability

CWS seeks authority to limit the liability of the Company, its agents and employees for damages arising out of interruption of service or the failure to furnish service, whether caused by acts or omission, to those remedies provided in the Commission's rules and regulations governing water and wastewater utilities. (Application at ¶ 22). Mr. Cartin points out that the Commission has promulgated regulations for quality of service and interruption of service. Limiting customer remedies to those provided in the regulations will eliminate the prospect of unnecessary litigation and result in cost savings which will benefit customers. R. pp. 310-311 (Cartin Dir., p. 12, l. 14 – p. 13 l. 2). The ORS does not oppose the Company's proposed changes to tariff language regarding liability for interruption of service. Interruption of service is regulated by the Commission in S.C, Code Ann. Regs. 103-771an 103-551. R. p. 670 (Schellinger Dir., p. 11, ll.

7-12) The proposed limitation of liability to those protections found in S.C. Code Reg. 103-771 and 103-551 is reasonable and is approved.

K. Authorized Revenues

CWS requested in its Application to increase revenues for combined operations by \$4,511,414, comprising a water revenue increase of \$2,272,914 and a sewer revenue increase of 2,238,500, based on the rate of return on rate base methodology utilizing an ROE of 10.5% and an historical test year ending August 31, 2017. The revenue and expense adjustments to the requested increase in revenue set out herein at the approved ROE of 10.50%, produce additional operating revenue of \$2,936,437 consisting of a water revenue increase of \$1,286,127 and a sewer revenue increase of \$1,650,310.

L. Rate Design

Exhibit “A” to the Application contains the Company’s Schedule of Proposed Water Charges. The proposed water rate structure for Territory 1 and Territory 2 will remain the same as approved in Order No. 2015-876. In Territory 1 and Territory 2 there will remain separate charges for Water Supply Customers (where water is supplied by wells owned and operated by CWS) and Water Distribution Customers (where water is purchased from a governmental body or agency or other entity for distribution and resale by CWS). R. p. 264 (Hunter Dir. p. 5, ll. 18–25).

Exhibit “A” to the Application contains the Company’s Schedule of Proposed Sewer Charges. Under the existing tariff, the flat rate charge for Sewer Collection & Treatment Only Customers and the flat rate charge for Sewer Collection Only Customers are two different rates. CWS proposes to combine Sewer Collection & Treatment Only Customers and Sewer Collection Only Customers into one single rate per unit. Separate rates will remain on the tariff for Mobile

Homes, Wholesale Services (Midlands Utility) and The Village Sewer Collection Customers. R. p. 265 (Hunter Dir., p.6, ll. 16–23).

Rate design is a matter of discretion for the Commission. In establishing rates, it is incumbent upon us to fix rates which “distribute fairly the revenue requirements [of the utility].” *See Seabrook Island Property Owners Association v. S.C. Public Service Comm’n*, 303 S.C. 493, 499 (1991). Our determination of “fairness” with respect to the distribution of the Company’s revenue requirement is subject to the requirement that it be based upon some objective and measurable framework. *See Utilities Services of South Carolina, Inc., v. South Carolina Office of Regulatory Staff*, 392 S.C. 96, 113-114 (2011).

CWS has combined certain of its sewer rates in this docket moving closer to uniform rates. The water rate design was approved by Order No. 2015-876. No party contests the proposed rate design and it is approved by the Commission.

M. Forty Love Point

The Forty Love Point Homeowners Association intervened questioning sewer service in the neighborhood. Barbara King and Jay Dixon, residents of the Forty Love subdivision, testified that they experienced sewer backups in their homes and chronicled the efforts of CWS to address their concerns. Representatives of CWS and its engineers, DHEC and ORS have met with the witnesses. CWS provides collection only services to Forty Love and Richland County treats the sewage. The witnesses testified that Richland County and CWS should coordinate any remedy for the customer concerns. The witnesses believe their sewer system is outdated and inadequate. The witnesses also contest the proposed rate increase. R. pp. 608–610 (Dixon Dir. p. 1, l. 1 – p. 4, l. 76); R. pp. 603 – 605 (King Dir., p. 1, l. 1 – p. 3, l. 59).



CWS witness Gilroy testified that the Forty Love sewer system is a LETTS design installed by the developer. LETTS systems are modified septic tanks in which solid waste accumulates in a holding tank with the gray water draining to a common sewer main for transport to the Richland County Utilities treatment plant. CWS has been working with the Kings and Dixons to determine why their LETTS tanks fail to drain during prolonged rain events. CWS believes the elevation and distance between their finished basements and the sewer main outside provides for no leeway when the sewer main backs up slightly. CWS has a contractor working to install a pump tank that will both pump their water into the main and provide the separation needed to eliminate backups of their homes. R. pp. 363–364 (Gilroy Rebut., p. 1, l. 8 – p. 2, l. 10).

CWS is also retaining a professional engineering firm to inspect the system and help us solve the sewerage backup problems experienced by these customers. While it is working towards a permanent solution, CWS will continue to alleviate the problem by dispatching pump trucks to the neighborhood when heavy rains are anticipated. CWS is also inspecting each LETTS tank and will reseal them as necessary. Reduced water from the tanks should ease the stress placed on our system. *Id.*

CWS will continue to communicate the engineering assessment with the outside contractor with Forty Love. CWS and Forty Love have agreed to report their findings to the Commission and ORS in six months – by September 30, 2018. *Id.* The Commission finds that the agreement between CWS and Forty Love is reasonable.

CWS and the HOA have agreed to the following plan of action which, at their request, the Commission incorporates in its Order:

CWS acknowledges that some of its customers in the Forty Love Point neighborhood have experienced problems with sewerage backups. CWS has taken,

and will continue to take, measures to address these customers' concerns. CWS and the HOA agree to cooperatively investigate the source and extent of sewerage problems experienced by customers in the Forty Love Point neighborhood and formulate a plan to address them. The company is retaining an engineering firm to perform an assessment of the Forty Love Point system, and CWS will continue to work with DHEC and Richland County to determine whether issues with the latter's system may be affecting Forty Love Point. CWS and the HOA will report their findings to the PSC and the ORS in six months.

N. Dancing Dolphin, LLC

The Commission requested the ORS investigate the allegations made by CWS' customer the Dancing Dolphin, LLC. The ORS recommends that CWS complete an inflow and infiltration study and a cost benefits analysis for the sewer system serving the properties owned by the Dancing Dolphin. R. pp. 705–706 (Schellinger Dir., p. 16, l. 20 - p. 17, l. 3) CWS will conduct an inflow and infiltration study and provide a report to the Commission within one year of the date of the Order. R. pp. 317–318 (Cartin Rebut., p. 2, l. 19 - p. 3, l. 2). In addition, CWS has credited the Dancing Dolphin, LLC with one month's bill to address the customer's concerns. R. p. 310 (Cartin Dir. p. 12, ll. 12–13). The Commission finds CWS conduct to be prudent and reasonable.

O. Customer Communications

The record reflects that CWS is working to give its customers a better understanding of the pressures and costs of operating its water and sewer systems. The Company has hired a communications coordinator to direct its customer outreach activities. R. pp. 251-253. Since December of 2017, CWS scheduled meetings with its customers in York County on December 4, 2017, and February 27, 2018; Lexington County on December 5, 2017; Anderson County on December 6, 2017; Richland County on February 21, 2018, and Greenville County on March 1, 2018. At those meetings, CWS gave customers the opportunity to meet with its management and

field personnel to learn more about its operations and cost of service. R. p. 371 (Gilroy Resp., p.1, ll. 6–16)

P. Water Quality

Mr. Lee Kelher testified at the York County night hearing that, at CWS's request, he conducted a water test analysis in his home on December 6, 2017, and it revealed lead above the EPA action levels. R. pp. 12-18. According to Mr. Gilroy, Mr. Kelher's premises was selected for a water quality testing as a part of CWS' routine water quality testing required by DHEC. R. pp. 372-373 (Gilroy Resp. pp. 2-3). According to Mr. Gilroy, lead analytical results are evaluated against an action level set by the EPA. The action level for lead is 0.015 ppm. When the concentration in more than 10 percent of tap water samples collected during any monitoring period is greater than the EPA action level, the system is deemed to have an action level exceedance and consumers must be notified of the health risks associated with lead in drinking water. A system is in compliance when 90 percent of the samples collected are less than or equal to the action level. *Id.*

Prior to 2015, there was no history of exceeding the lead action limit in the River Hills community. In 2015, CWS experienced exceedances in its lead testing results in the River Hills service territory for which DHEC guidelines require additional testing. *Id.* During the next testing period, July-December 2016, over 90 percent of the homes tested below the action level, and the system was again in compliance. However, Mr. Kelher's water sample exceeded the EPA action level for lead of 0.015 ppm. *Id.* During the June-December 2017 testing period, more than 90 percent of the homes once again tested below the action level, meaning the system remained in compliance. At the hearing, with the consent of the parties, counsel for CWS informed the

Commission that a recent water sample taken at Mr. Kelher's home tested negative for lead. R. p. 803, ll. 14-18.

The source of the lead in Mr. Kelher's water is not clear. River Hills is provided purchased water treated by York County with the appropriate corrosion control treatment in place. The lead detected at Mr. Kelher's home may come from his home's plumbing or fixtures. However, the record shows CWS properly handled the water sampling in River Hills and with respect to Mr. Kelher. Over ninety percent of the samples sites in River Hills have not revealed lead over the past two years, and the most recent source water sampling did not detect lead, indicating that the water supplied to customers is not the source of lead, and that CWS's River Hills system is well within allowable limits.

Gerald Tansey, Chuck Ledford, and Al Vesting, testified that they experienced water stains on their faucets and facilities. R. pp. 18-31. Another witness, Mr. Augustine, complained about chlorine odor. R. pp. 37-41. CWS purchases water from York County to service Lake Wylie customers. However, York County purchases the bulk water from the City of Rock Hill. Both Rock Hill and York County have an obligation to provide bulk water meeting all state and federal standards. In collaboration with York County Councilwoman Allison Love, CWS President Catherine Heigel agreed on behalf of CWS to test the water provided CWS by York County for impurities and inform Councilwoman Love and CWS's customers of the test results. R. p. 373 (Gilroy Resp., p. 3, l. 16 – p. 4, l. 1). The Commission finds that CWS has satisfactorily communicated with its customers and County representatives to satisfy them that water quality meets expectations.

Chuck Ledford, raised concerns that his meter was set deep in the group and were subject to being covered by water making it difficult to read. R. p 23, ll. 14-23, p. While Mr. Ledford's meter appears to have been read, after inspection by CWS personnel, the Company decided to raise his meters to address their concerns. R. p. 374 (Gilroy Resp., p. 4, ll. 2–8). The Commission finds CWS's actions responsive and reasonable.

Q. Lift Station Maintenance

Mr. Ledford and Mr. Rivan raised concerns about odors from pump stations. R. pp. 27-28; 45-47. Mr. Gilroy gave detailed testimony about the maintenance of lift stations near the homes of Mr. Ledford and Mr. Rivan and said that operational issues have been greatly reduced since CWS began a contractor driven yearly routine maintenance schedule three years ago. R. p. 375 (Gilroy Resp. p. 4, l. 9 – p. 5, l. 13. CWS has performed the maintenance of the pump stations. The Company's maintenance of its pump stations appears prudent.

R. Shandon Water System

Linda Fick testified to her concerns over the water source for the Shandon water system, in which CWS serves 64 customers in York County. R. pp. 48-59, 516. Mr. Gilroy testified that in the fall of 2015, Well #3 in the CWS Shandon water system tested positive for bacterial contamination. R. pp. 375-376 (Gilroy Resp., p. 5, l. 15–p. 6. l. 6). The Shandon distribution system tested negative. Several attempts were made early in 2016 to rehabilitate the well to make it useful, but they were unsuccessful. A new well source was required. *Id.* CWS hired a land acquisition company to seek suitable properties for a new source well. *Id.* During the summer of 2016, it could find no property owners willing to provide property. In the fall of 2016, CWS requested permission from DHEC to drill a well on Company owned property on which a

wastewater treatment plan is located. Permission was granted, but unfortunately the well was dry. *Id.* In the spring of 2017, a nearby property owner provided land through a lease for the drilling of multiple test wells. CWS began drilling the first well after receiving necessary permits in the fall 2017. *Id.* As of spring of 2018, CWS has drilled three wells. One well has less than half of the needed water, and the other two are dry. *Id.* CWS then investigated the feasibility of interconnecting with the closest water distribution system approximately a half mile away. The interconnection would take a considerable amount of time and cost more than \$3 Million. *Id.* Mr. Gilroy assured the Commission that CWS will investigate the full potential of the existing wells within the two systems to determine whether an additional well source or storage is needed for a successful interconnection. *Id.* CWS is appropriately responding to Ms. Frick's concerns.

S. Water Service Interruption and Pressure Concerns

Two witnesses at the Columbia night hearing testified about water service interruption in the Spring Lake subdivision and said they did not get timely notifications of boil water advisories.<sup>4</sup> Mr. Gilroy testified that losing water service and fluctuating water pressure in both the Spring Lake and Laurel Meadows subdivision resulted from a break in a line in the Laurel Meadows subdivision. R. pp. 376-377 (Gilroy Resp., p. 6, l. 17 – p. 7, l. 4). When the break happened, boil water advisories were issued by robocall to all customers within the affected subdivisions of Laurel Meadows, Spring Lake and Planter's Station. *Id.*

Joe Neeley, of West Columbia, testified that a home in his neighborhood burned down because firefighters did not have adequate water pressure for their fire hose. R. p. 188. Mr. Gilroy testified that the water pressure was lower than normal at the time of that incident because there

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<sup>4</sup> Carl Bartlett, R. p. 166, l.9 – 169, l. 21; Joyce Fleming, R. pp. 195, l. 10 – 196, l. 5;

were two other fully involved fires with multiple fire departments responding in the I-20 service territory which put understandable constraints on the I-20 water system. The normal pressure range within Laurel Meadows subdivision is approximately 75 psi. R. pp. 378 (Gilroy Resp., p. 7, l. 22 – p. 8, l. 5), 559-560. The low pressure in the I-20 service territory appears to have been unavoidable.

T. Washington Heights Improvements

Ms. Coit testified that CWS had not made improvements to improve service in the Washington Heights subdivision. R. pp. 175-182. Mr. Gilroy responded that since the last rate case, CWS had installed a new hydro tank in 2016 to serve the Washington Heights subdivision. R. p. 377 (Gilroy Resp., p. 7, ll. 12–21) CWS has undertaken a program to replace all its hydro tanks, which will allow for more efficient water service and will reduce the likelihood of repair. In response to neighborhood concerns about fire protection, CWS also installed a new interconnection with the City of Columbia that allows enhanced flushing of water mains and provides adequate water pressure for the fire hydrants. *Id.*

U. Inflow and Infiltration Concerns

Mr. Gilroy testified in response to concerns raised by several witnesses from the Canterbury Subdivision at the Greenville night hearing. R. pp. One customer, Bobbie Lyons, experienced a stoppage as the result of grease blocking the lateral line at the tap, prior to entering the main line. R. p. 378, l. 21 – p. 379, l. 23. Mr. Gilroy testified that CWS cleared the blockage. *Id.* Many of these customers appear to have experienced problems with their own service lines, as opposed to those belonging to the Company. For instance, Virginia Gray testified that she had experienced backups as the result of roots infiltrating the lines under her house and had to cut a tree down in

her yard to prevent further damage. R. p. 106. Mr. Gilroy testified that CWS made service calls to Ms. Gray's home in 2006 and 2007 and found on both occasions her problems were caused by her home's plumbing lines. R. p. 379 (Gilroy Resp. p.9, ll. 4-12). Similarly, James Bryant testified that he had a backup in early 2017, and a plumber had to replace pipes in his home and force a blockage from Mr. Bryant's home into the Company's main line. R. p. 117. Mr. Gilroy testified that, after the Greenville hearing, the Company directed its Area Manager to inspect CWS's lines in the Canterbury subdivision with a camera to see if there are any issues that need to be addressed. R. p. 378 (Gilroy Resp., p. 8, ll. 12 – 20).

The Commission finds that CWS reacted appropriately to the reported incidents and encourages the Company to continue its efforts to improve communications with its customers.

### III. FINDINGS OF FACT

1) CWS is a water and sewer utility providing water and sewer service in its assigned service area in South Carolina. The Commission is vested with authority to regulate rates of every public utility in this state and to ascertain and fix just and reasonable rates for service. S.C. §58-5-210, *et. seq.* CWS's operations in South Carolina are subject to the jurisdiction of the Commission.

2) CWS requested in its Application to increase revenues for combined operations by \$4,511,414 comprising a water revenue increase of \$2,272,914 and a sewer revenue increase of 2,238,500, based on the rate of return on rate base methodology utilizing an ROE of 10.5% and a historical test year ending August 31, 2017.

3) The test year period for this proceeding, selected by the Company, is September 1, 2016 through August 31, 2017.



4) The Commission will use the return on rate base methodology in determining and fixing just and reasonable rates.

5) The return on rate base methodology requires three components: capital structure, cost of debt, and cost of equity (or ROE).

6) CWS's rate base is \$55,524,956 after the adjustments adopted by the Commission.

7) The Commission adopts and approves of a capital structure of 48.11% long-term debt and 51.89 % equity; a cost of debt rate of 6.60 %; and an ROE of 10.50%.

8) The approved capital structure, cost of debt rate, and ROE produce additional operating revenue of \$2,936,437 consisting of a water revenue increase of \$1,286,127 and a sewer revenue increase of \$1,650,310.

9) The approved revenues and expenses establish a fair and reasonable operating margin of 13.23%, and a return on rate base of 8.42%.

10) The schedule of rates and terms and conditions attached to this Order as Exhibit A are just and reasonable and designed to achieve the Company's new revenue requirement.

#### IV. CONCLUSIONS OF LAW

Based upon the discussion, findings of fact and the record of the instant proceeding, the Commission makes these Conclusions of Law:

1) CWS is a public utility as defined in S.C. Code § 58-5-10(3) and is subject to the jurisdiction of this Commission.

2) The appropriate test year on which to set rates for CWS is the twelve-month period beginning September 1, 2016 and ending August 31, 2017.

3) Based on the information provided by the parties, the Commission concludes the rate setting methodology to use as a guide in determining the lawfulness of CWS's proposed rates and for fixing just and reasonable rates is return on rate base.

4) For CWS to have the opportunity to earn the 10.5% ROE, found fair and reasonable herein, CWS must be allowed additional revenues of \$2,936,437.

5) The schedule of rates and terms and conditions in the attached Exhibit A are approved for use by CWS and are just and reasonable without undue discrimination and are also designed to meet the revenue requirements of CWS.

6) Pursuant to S.C. Code § 58-5-720 and 10 S.C. Code Regs. §§ 103-512.3 and 103-712.3, CWS will post a performance bond of \$350,000 water and \$350,000 for sewer operations.

*Continued on next page*

V. ORDERING PROVISIONS

IT IS THEREFORE ORDERED THAT:

- I. The rates, fees, and charges in Order Exhibit 1 are both fair and reasonable and will allow CWS to continue to provide its customers with adequate water and wastewater services.
- II. The Company is to provide thirty (30) days' notice of the increase to customers of its water and wastewater services prior to the rates and schedules being put into effect for service rendered. The schedules will be deemed filed with the Commission under S.C. Code § 58-5-240.
- III. An ROE of 10.5%, return on rate base of 8.42% and operating margin of 13.23% based on the new rates, fees, and charges, is approved for CWS.
- IV. The Company will continue to maintain current performance bonds in the amounts of \$350,000 for water operations and \$350,000 for wastewater operations pursuant to S.C. Code § 58-5-720.
- V. This Order will remain in full force and effect until further order of the Commission.

*Signatures on next page*

BY ORDER OF THE COMMISSION:

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Swain E. Whitfield, Chairman

ATTEST:

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Comer H. Randall, Vice Chairman